

What is claimed is:

1. An intermittent communication method comprising:
  - a step of transmitting identification information
  - 5 including an intermittent communication period and frame information for carrying out a data communication together with an intermittent communication request from a communication terminal apparatus to a communication terminal accommodation apparatus;
  - 10 a step of said communication terminal accommodation apparatus transmitting a confirmation signal of the intermittent communication request to said communication terminal apparatus; and
  - a step of said communication terminal apparatus
  - 15 entering an intermittent communication mode when said communication terminal apparatus receives said confirmation signal and carrying out a data communication using only the frame for carrying out said data communication in said intermittent communication mode.
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2. An intermittent communication method comprising:
  - a step of transmitting an intermittent communication request from a communication terminal apparatus to a communication terminal accommodation apparatus;
  - 25 a step of said communication terminal accommodation apparatus transmitting a confirmation signal of the intermittent communication request together with

identification information including an intermittent communication period and frame information for carrying out a data communication to said communication terminal apparatus; and

5 a step of said communication terminal apparatus entering an intermittent communication mode when said communication terminal apparatus receives said confirmation signal and carrying out a data communication with only the frame for carrying out said data  
10 communication in said intermittent communication mode.

3. The intermittent communication method according to claim 1, wherein the identification information includes information on the number of frames used for a  
15 communication.

4. The intermittent communication method according to claim 2, wherein the identification information includes information on the number of frames used for a  
20 communication.

5. The intermittent communication method according to claim 1, wherein the intermittent communication period matches the period of the same frame as that of MAC  
25 broadcast.

6. The intermittent communication method according to claim 2, wherein the intermittent communication period

matches the period of the same frame as that of MAC broadcast.

7. The intermittent communication method according to  
5 claim 1, wherein the communication terminal apparatus  
does not receive any control channel signal in a data  
communication in the intermittent communication mode.

8. The intermittent communication method according to  
10 claim 2, wherein the communication terminal apparatus  
does not receive any control channel signal in a data  
communication in the intermittent communication mode.

9. The intermittent communication method according to  
15 claim 5, wherein the intermittent communication mode  
period is shorter than a maximum allowable  
synchronization holding time of the communication  
terminal apparatus.

20 10. The intermittent communication method according to  
claim 6, wherein the intermittent communication mode  
period is shorter than a maximum allowable  
synchronization holding time of the communication  
terminal apparatus.

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11. The intermittent communication method according to  
claim 5, wherein when the intermittent communication mode  
period is longer than a maximum allowable synchronization

holding time, the communication terminal apparatus receives a control channel signal to correct an out-of-synchronization state.

5 12. The intermittent communication method according to claim 6, wherein when the intermittent communication mode period is longer than a maximum allowable synchronization holding time, the communication terminal apparatus receives a control channel signal to correct an  
10 out-of-synchronization state.

13. The intermittent communication method according to claim 1, wherein the communication terminal apparatus receives a control channel signal for periodically  
15 checking the control of the communication terminal accommodation apparatus in the intermittent communication mode period.

14. The intermittent communication method according to claim 2, wherein the communication terminal apparatus receives a control channel signal for periodically  
20 checking the control of the communication terminal accommodation apparatus in the intermittent communication mode period.

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15. The intermittent communication method according to claim 1, wherein when the communication terminal apparatus receives a Nack signal from the communication

terminal accommodation apparatus, a retransmission frame is added.

16. The intermittent communication method according to  
5 claim 2, wherein when the communication terminal apparatus receives a Nack signal from the communication terminal accommodation apparatus, a retransmission frame is added.

10 17. The intermittent communication method according to  
claim 1, wherein the intermittent communication period is set to once every  $2^n$  frames (n: natural number) and an intermittent communication is performed by patterning applications with a plurality of periods.

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18. The intermittent communication method according to  
claim 2, wherein the intermittent communication period is set to once every  $2^n$  frames (n: natural number) and an intermittent communication is performed by patterning applications with a plurality of periods.

20 19. A communication terminal apparatus comprising:  
an identification information insertion section  
that inserts identification information including an  
25 intermittent communication period and frame information  
for carrying out a data communication into transmission  
data; and

a control section that performs control, when a

confirmation signal in response to an intermittent communication request is received from a communication terminal accommodation apparatus, in such a way that said data communication is carried out based on the 5 intermittent communication period and frame information for carrying out a data communication only using the frame for carrying out said data communication.

20. A communication terminal accommodation apparatus 10 comprising:

a reception section that receives an intermittent communication request from a communication terminal apparatus;

15 a transmission section that transmits a confirmation signal of the intermittent communication request together with identification information including an intermittent communication period and frame information for carrying out a data communication to said communication terminal apparatus; and

20 a communication control section that carries out a data communication, when said communication terminal apparatus enters an intermittent communication mode, using only the frame for carrying out said data communication in said intermittent communication mode.

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21. A radio communication system comprising a plurality of communication terminal apparatuses and a communication terminal accommodation apparatus that accommodates these

communication terminal apparatuses,  
wherein said communication terminal apparatus  
comprises an intermittent communication apparatus  
provided with an identification information insertion  
5 section that inserts identification information  
including an intermittent communication period and frame  
information for carrying out a data communication into  
transmission data and a control section that performs  
control, when a confirmation signal in response to an  
10 intermittent communication request is received from the  
communication terminal accommodation apparatus, in such  
a way that a data communication is carried out using only  
the frame for carrying out said data communication based  
on the intermittent communication period and frame  
15 information for carrying out a data communication, and  
said communication terminal accommodation  
apparatus comprises an intermittent communication  
apparatus provided with a reception section that receives  
an intermittent communication request from said  
20 communication terminal apparatus, a transmission section  
that transmits a confirmation signal of the intermittent  
communication request together with identification  
information including an intermittent communication  
period and frame information for carrying out a data  
25 communication and a communication control section that  
carries out a data communication, when said communication  
terminal apparatus enters an intermittent communication  
mode, using only the frame for carrying out said data

communication in said intermittent communication mode.

22. An intermittent communication program to cause a computer to execute:

5       a step of transmitting identification information including an intermittent communication period and frame information for carrying out a data communication together with an intermittent communication request from a communication terminal apparatus to a communication 10 terminal accommodation apparatus;

      a step of said communication terminal accommodation apparatus transmitting a confirmation signal of the intermittent communication request to said communication terminal apparatus; and

15       a step of said communication terminal apparatus entering an intermittent communication mode when said communication terminal apparatus receives said confirmation signal and carrying out a data communication using only the frame for carrying out said data 20 communication in said intermittent communication mode.

23. An intermittent communication program to cause a computer to execute:

      a step of transmitting an intermittent 25 communication request from a communication terminal apparatus to a communication terminal accommodation apparatus;

      a step of said communication terminal accommodation

apparatus transmitting a confirmation signal of the intermittent communication request together with identification information including an intermittent communication period and frame information for carrying 5 out a data communication to said communication terminal apparatus; and

a step of said communication terminal apparatus entering an intermittent communication mode when said communication terminal apparatus receives said 10 confirmation signal and carrying out a data communication using only the frame for carrying out said data communication in said intermittent communication mode.